

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application:

**Listing of Claims:**

- 1 (currently amended): A method for setting a pixel clock of a display driving circuit, the  
5 display driving circuit being used to drive a display device, the method comprising:  
  
(a) deriving a predetermined pixel clock from a display mode setting set by the  
display device;  
  
(b) generating a reference clock, and using a plurality of scaling factors for  
respectively adjusting a frequency value of the reference clock to generate a plurality of  
10 calculation results, wherein the scaling factors are generated by using a plurality of first  
coefficients M and a plurality of second coefficients N, the first coefficients M are used to  
increase the frequency value, the second coefficients N are used to decrease the frequency  
value, and the first coefficients M and the second coefficients N are natural numbers;  
  
(c) using a plurality of first third coefficients R for respectively right-shifting R bits  
15 of the calculation results to generate a plurality of quotients, the third coefficients R being  
natural numbers, wherein the first coefficients M, the second coefficients N, and the third  
coefficients R form a plurality of combinations, and the combinations are calculated  
within a plurality of loop operations to generate the quotients;  
  
(d) comparing a plurality of differences between the quotients and the predetermined  
20 pixel clock for obtaining an optimum quotient;  
  
using a first difference between a quotient and the predetermined pixel clock which  
is calculated in a first loop operation as a minimum difference;  
  
if a second difference between a quotient and the predetermined pixel which is  
calculated in a second loop operation after the first loop operation is less than the first  
25 difference, using the second difference to update the minimum difference;  
  
recording values of the first coefficients M, the second coefficients N, the third  
coefficients R, and the minimum difference for each loop operation;

after all of the loop operations are executed, using a quotient associated with the minimum difference as the optimum quotient; and

(e) using a scaling factor and a first third coefficient R corresponding to the optimum quotient for generating an actual pixel clock used to drive the display device.

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2 (cancelled).

3 (currently amended): The method of ~~claim 2~~ claim 1 wherein the scaling factors correspond to  $(M+2)/(N+2)$ , and the second coefficients M and the third coefficients N are integers.

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4-5 (cancelled).

6 (currently amended): A method for setting a pixel clock of a display driving circuit, the display driving circuit being used to drive a display device, the method comprising:

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(a) deriving a predetermined pixel clock from a display mode setting set by the display device;

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(b) generating a reference clock, and using a plurality of first coefficients R for respectively right-shifting R bits of a frequency value of the reference clock to generate a plurality of quotients, the first coefficients R being natural numbers;

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(c) using a plurality of scaling factors for respectively adjusting the quotients to generate a plurality of calculation results, wherein the scaling factors are generated by using a plurality of second coefficients M and a plurality of third coefficients N, the second coefficients M are used to increase the frequency value, the third coefficients N are used to decrease the frequency value, and the second coefficients M and the third coefficients N are natural numbers, wherein the first coefficients R, the second coefficients M, and the third coefficients N form a plurality of combinations, and the combinations are calculated within a plurality of loop operations to generate the

quotients;

- (d) comparing a plurality of differences between the calculation results and the predetermined pixel clock for obtaining an optimum calculation result;  
using a first difference between a quotient and the predetermined pixel clock which  
5 is calculated in a first loop operation as a minimum difference;  
if a second difference between a quotient and the predetermined pixel which is  
calculated in a second loop operation after the first loop operation is less than the first  
difference, using the second difference to update the minimum difference;  
recording values of the first coefficients R, the second coefficients M, the third  
10 coefficients N, and the minimum difference for each loop operation;  
after all of the loop operations are executed to calculate the differences, using a  
quotient associated with the minimum difference as the optimum quotient; and  
(e) using a scaling factor and a first coefficient R corresponding to the optimum  
calculation result for generating an actual pixel clock used to drive the display device.

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7 (cancelled).

20 8 (currently amended): The method of claim 7 wherein the scaling factors  
correspond to  $(M+2)/(N+2)$ , and the second coefficients M and the third coefficients N  
are integers.

9-10 (cancelled).